

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Ely Field Office
HC 33 Box 33500 (702 No. Industrial Way)
Ely, Nevada 89301-9408
<http://www.nv.blm.gov/>

In Reply Refer To:
3160 (NV-043)
NV-040-06-028
N80802

Dear Interested Party:

Enclosed is the Decision Record/Finding of No Significant Impact (DR/FONSI) for the Tierra Nevada Exploration Partners, LP oil and gas drilling project. The decision to authorize the proposed action is issued full force and effect. The supporting Environmental Assessment (EA NV-040-06-028) is available on the Ely Field Office website:

http://www.nv.blm.gov/ely/nepa/ea_list.htm.

Implementation of the proposed action will allow Tierra Nevada Exploration Partners, LP to exercise its rights under the lease agreement to explore for reserves of oil and gas so as to meet the increasing energy needs of this Nation. Any impacts resulting from the proposed action will be minimized through the carefully planned proposed action developed in the APD, the standard State and Federal operating regulations for oil and gas exploration, and the conditions of approval.

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations at 43 CFR, Part 4. If an appeal is taken, your appeal must be filed with the Bureau of Land Management, Ely Field Office, HC33 Box 33500, Ely, Nevada, 89301, within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulation 43 CFR 4.21 or 43 CFR 3000.4 for a stay (suspension) of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. Copies of the notice of appeal and petition for a stay must also be submitted to the Interior Board of Land Appeals, Office of Hearings and Appeals, 4015 Wilson Boulevard, Arlington, VA 22203, and to the Office of the Solicitor, U.S. Department of the Interior, Suite 6201, Federal Bldg., 125 South State St., Salt Lake City, Utah, 84138, at the same time the original documents are filed with this office.

If you request a stay, you have the burden of proof to demonstrate that a stay should be granted. A petition for a stay of a decision pending appeals shall show sufficient justification based on the following rules:

- (1) The relative harm to the parties if the stay is granted or denied,
- (2) The likelihood of the appellant's success of the merits,
- (3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

Thank you for your participation in this EA and your interest in public lands. If you have any questions, please contact Bill Wilson at (775) 289-1882.

Sincerely,

Jeffrey Weeks
Assistant Field Manager
Non-Renewable Resources

Enclosure:

DR/FONSI, Tierra Nevada Exploration Partners, LP

WWilson:ww

Decision Record and Finding of No Significant Impact

For Tierra Nevada Exploration Partners, LP Sage #1

Lease No. N80802
EA # NV-040-06-028

DECISION: It is my decision to authorize the Tierra Nevada Exploration Partners, LP oil and gas well located in Nye County and described in the proposed action of the Environmental Assessment (EA). I concur with my staff's assessment of the environmental impacts and authorize the proposed action subject to the standard stipulations that are a part of State and Federal operating regulations, the Egan Resource Management Plan and Oil and Gas Leasing Amendment, and the site-specific conditions of approval (COAs) as listed below:

Conditions of Approval

1. As well as the following site specific conditions of approval listed below, surface operations will follow the *Surface Operating Standards and Guidelines for Oil and Gas Exploration, Gold Book* and the Conditions of Approval (COAs) contained in the *Egan Resource Management Plan, Oil and Gas Leasing Amendment and Record of Decision*.
2. The top 12" of topsoil, where available, from pad construction will be salvaged, stockpiled separately from any other material. The topsoil will be seeded immediately with the attached interim seed mix in order to stabilize the soil and help prevent the establishment of invasive and non-native weeds. An additional interim seeding may be required.
3. Pad reclamation will consist of recontouring, ripping, re-spreading the topsoil, and reseeded with the attached final seed mixture which should be planted between October 1 and March 15. Performance standards for revegetation success are that the reclaimed area will have at least 100% of the perennial canopy cover of the existing adjacent plant cover. The site will be evaluated by the Ely BLM for vegetative progress after at least one full growing season. If not successful, the BLM reclamation specialist will review the reclamation procedures with the operator to decide on the best course of action to achieve success.
4. Access road construction will include salvaging the top 12" of topsoil in a windrow along the edge of the road and immediately seeding it with the same interim seed mixture as used for the pad. Reclamation will be similar to that for the location pad: regarding, ripping the road surface, recovering with the salvaged topsoil, and final seeding.

5. Gravel used for pad or access road construction may be placed only after the underlying topsoil has been salvaged. It may be removed prior to regrading and ripping or left to be incorporated in the reclamation procedures outlined above.
6. The operator will be responsible for complete control of any noxious weeds that become established within the project area during the life of this project through final reclamation. This would include the responsibility for control of noxious weeds along the access roads, pad location, and any water and gravel sources.
7. The operator will be responsible for taking steps to mitigate the spread or increased densities of invasive weeds that result from implementation of the proposed action. The operator will implement the Ely Field Office Noxious Weed Prevention Schedule and SOPs for weed treatments, with special emphasis on the following actions. Prior to entering the site, all construction, drilling equipment, and vehicles will be washed down and cleaned to prevent the importation of noxious weed seeds from prior places of work. Vehicles will stay on roads and avoid driving through any weed patches. All seeds used in reclamation will be certified weed-free. The operator will assist in monitoring for noxious and invasive weeds during the life of the project, until reclamation is complete.
8. Noxious and invasive weeds, which may be introduced due to soil disturbance and reclamation, will be treated by methods to be approved by the authorized officer. These methods may include biological, mechanical, cultural or chemical. Should chemical methods be approved, the lessee must submit a Pesticide Use Proposal to the authorized officer 60 days prior to the planned application date. All BLM and Ely Field Office SOPs for weed treatments will be complied with. Copies of all Pesticide Application Reports will be provided to the Ely Field Office Weed Coordinator and to the Nevada Department of Agriculture.
9. Operations commencing during the period May 1 to July 15 will be subject to the provisions of the Ely District policy management actions for the conservation of migratory birds. A qualified wildlife biologist will survey the area for nesting migratory birds. If any are found, operations will be postponed until after July 15.

Monitoring

Monitoring will consist of periodic compliance inspections of the area during the life of the drilling operation by an authorized officer of the BLM. This monitoring will consist of checks on initial location of facilities, compliance with Federal regulations, and the status of any reclamation. Periodic checks for establishment of noxious weeds will also occur during these site visits.

Rationale: Implementation of the proposed action will allow Tierra Nevada Exploration Partners, LP to exercise its rights under the lease agreement to explore for additional reserves of oil and gas so as to meet the increasing energy needs of this Nation. Any impacts resulting from the proposed action will be minimized through the carefully planned proposed action developed in the APD, the standard

State and Federal operating regulations for oil and gas exploration, and the site specific conditions of approval as listed above. As a result of the analysis for the proposed oil and gas well, it was determined that the Proposed Action will not result in unnecessary or undue degradation to the public lands. The proposed action is in conformance with Egan Resource Management Plan and is consistent with the Nye County Policy Plan for Public Lands (1984).

FONSI:

Finding of No Significant Impact: I have reviewed Environmental Assessment (EA) NV-040-06-028, dated August 16, 2005. After consideration of the environmental impacts as described in the EA, and incorporated herein, I have determined that the proposed drilling activities, with the standard operating procedures as described in the EA will not significantly affect the quality of the human environment and that an Environmental Impact Statement (EIS) is not required to be prepared. This finding and conclusion is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 Code of Federal Regulations 1508.27), both with regard to the context and the intensity of impacts described in the EA.

Rationale:

I have determined the proposed action is in conformance with the approved Egan Resource Management Plan, the Egan Oil and Gas Leasing Amendment, and the Nye County Comprehensive Plan

Intensity:

- 1) Impacts that may be both beneficial and adverse.
The environmental assessment has considered both beneficial and adverse impacts of the oil and gas drilling project. On the whole, the project will provide economic benefits to the local communities and perhaps the development of additional oil and gas reserves. Adverse effects will consist of disrupting approximately 4.8 acres of existing big sagebrush community for wildlife and grazing uses and increasing the susceptibility of these 4.8 acres for weed invasion.
- 2) The degree to which the proposed action affects public health or safety.
Implementation components of the proposed action will not result in potentially substantial or adverse impacts to public health and safety.
- 3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
There are no unique cultural or environmental characteristics in the geographic area. Public lands in this portion of White River Valley are used for grazing.
- 4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
The methods chosen to implement the drilling project and complete reclamation are accepted methods to meet resource and management objectives and are not considered highly controversial.

- 5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

There are no effects of the proposed action identified in the EA which are considered uncertain or involve unknown risks. All reclamation actions proposed to be employed have been developed through the drilling of over 200 oil and gas wells in the Ely BLM District and are accepted standard practices.

- 6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The proposed action does not establish a precedent for future actions with significant effects and does not represent a decision in principle about a future consideration.

- 7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

No significant cumulative impacts have been identified in the EA. The number of wells drilled in White River Valley is far less than that estimated in the Eagan Resource Area Oil and Gas Amendment.

- 8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

No districts, sites, highways, structures or objects listed in or eligible for listing in the National Register of Historic Places were identified in the project area and EA. The proposed action will not cause the loss or destruction of significant scientific, cultural or historical resources.

- 9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The EA has determined that no endangered or threatened species or their habitats are present in the project area. An occurrence of a BLM state sensitive species was avoided.

- 10) Whether the action threatens a violation of Federal, State, or local law or requirement imposed for the protection of the environment.

The proposed action will not violate or threaten to violate any Federal, State, or local law or requirement imposed for the protection of the environment.

Jeffrey A. Weeks
Assistant Field Manager
Non-Renewable Resources

Date



ENVIRONMENTAL ASSESSMENT

NV-040-06-028

APPLICATION FOR PERMIT TO DRILL

TIERRA NEVADA EXPLORATION PARTNERS, LP

LEASE NO. N80802

WELL

Sage #1

LOCATION: WHITE RIVER VALLEY

NYE COUNTY, NEVADA

PREPARED BY

BUREAU OF LAND MANAGEMENT
ELY FIELD OFFICE

AUTHOR

William R. Wilson

March 2006

I. BACKGROUND INFORMATION

Introduction

On February 11, 2006, the Ely Field Office of the Bureau of Land Management received a Notice of Staking from Tierra Nevada Exploration Partners, LP for an oil and gas well, Sage #1, located in Section 20, T. 10 N., R. 61 E., MDBM. This was followed by an Application for Permit to Drill on March 11, 2006 (**Attachment 1**). The proposed wildcat well is on Oil and Gas Lease N80802, approximately 13 miles southwest of Lund, in Nye County, Nevada - **Figure 1**. A pre-drill, onsite, inspection was held on March 1, 2006, to evaluate whether there were any cultural resources, T&E species, wildlife, or other site specific resources that might be adversely affected at the proposed location.

The project area is in the center of White River Valley in which several oil wells have been drilled and several geophysical surveys have been conducted.

Drilling operations within present leases cannot be cancelled by the denial of an APD. The Mineral Leasing Law of 1920, as amended, allows areas to be leased for oil and gas exploration and development. Leasing areas are developed through BLM's planning process. The individual who has the lease has the right to drill for oil and gas within that lease. The right to drill for oil on the lease also gives them a right to reach the proposed well site by a road route, the location of which has to be reasonable and cause no undue degradation to the environment.

The proposed Sage #1 well is designed to test for oil. Should a discovery be made, the well would be put into production with no additional ground disturbance. This NEPA analysis will evaluate both the exploration drilling and potential production of the Sage #1 location, if successful and desirable, subject to existing oil and gas regulations.

Need for the Proposal

The need is for a private corporation to seek an economic use of the public lands by drilling an exploratory well for oil and gas under appropriate Federal leases in the attempt to help meet the increasing demand for oil and gas in the United States.

Relationship to Planning

The Proposed Action is in conformance with the Proposed Egan Resource Management Plan (RMP) and Final Environmental Impact Statement (FEIS), September 21, 1984, which states "the public lands shall remain open and available for mineral exploration and development unless withdrawal or other administrative action is clearly justified in the national interest" (page 15). The Egan Resource Management Plan; Oil and Gas Leasing Amendment and Record of Decision, May 1994, specifically incorporates oil and gas leasing into the land use plan.

The Egan Resource Management Plan; Proposed Oil and Gas Leasing Amendment and Final Supplemental Environmental Impact Statement, August, 1993, analyzes impacts, including cumulative impacts, for actions such as the proposed action – wildcat oil and gas well drilling. That document is incorporated by reference into this environmental analysis. The document is

available at the Ely Field Office, Bureau of Land Management in Ely, Nevada.

The Nye County Comprehensive Plan (April 5, 1994) does not specifically address oil and gas leasing. However, the proposed action is consistent with this Plan, which states (p.20) that “Nye County has a clear public interest in working with mining companies to accommodate cycles of growth and decline, and, where possible, reduce cost.”

Issues

Special status plants, particularly *Cryptantha Welshii* are known to occur in this portion of White River Valley. No other issues were identified during internal scoping in relationship to the proposed drilling and potential production of this oil and gas well.

II. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

Proposed Action

Tierra Nevada Exploration Partners, LP proposes to drill a wildcat oil and gas well in T. 10 N., R. 61 E., section 20, approximately 13 miles southwest of Lund, Nye County, Nevada. Drilling operations would commence in the first half of 2005, depending on weather and rig availability, and are expected to be completed within approximately one month. If the hole is unsuccessful, it would be immediately plugged and abandoned. Reclamation would be completed in approximately three years.

Should the well be successful, production operations would last for several years. Production operations are generally handled through Sundry Notices (standard forms to notify or approve well operations subsequent to an APD) and associated permitting, unless they involve additional disturbance for which additional NEPA analysis is required. Typical activities include development of the well, installation of pumping and storage facilities, hauling of the oil to a process facility – usually one to two tanker truckloads per month, possible well servicing, and routine maintenance.

Site-specific actions were agreed upon during the August on-site visits and are included in the proposed action and Record of Decision. Site specific conditions of approval for all oil and gas operations in the Egan Resource Area are included in **Attachment 2** of this EA.

The estimated disturbance for the proposed action consists of:

Road Construction	3,400 ft x 20 ft	1.6
<u>Well pad</u>	350 ft x 400 ft	<u>3.2</u>
<u>Total</u>		<u>4.8 acres</u>

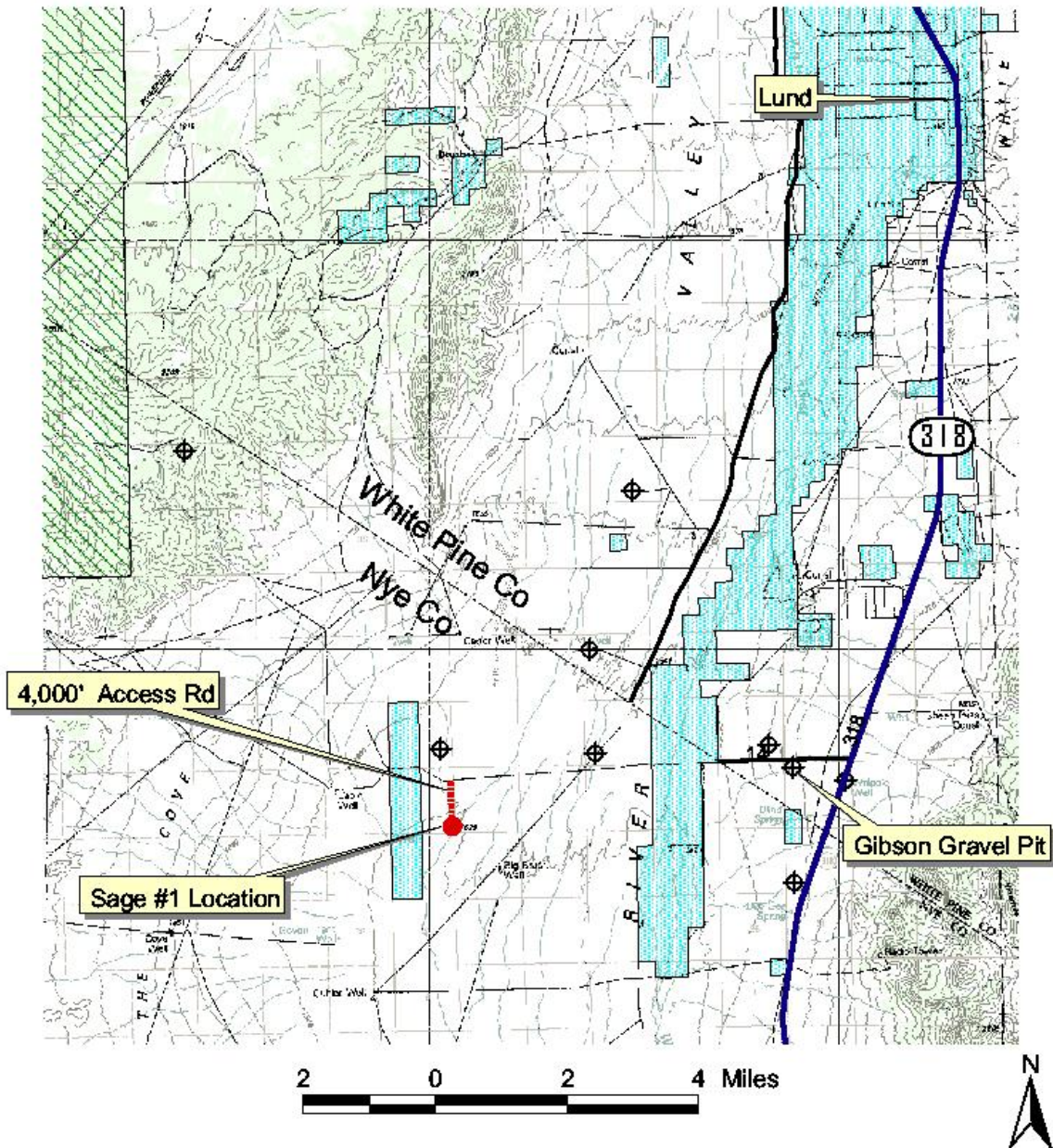
Figure 1

Duckwater 1:100,000
Moorman Spring NW 7.5' Quad
T 10 N, R 61 E, Sec 19

Tierra Nevada Exploration Partners, LP
Sage #1, Oil Well
White River Valley
Nye County, Nevada



Ely District
Bureau of Land Management



No warranty is made by the Bureau of Land Management
as to the accuracy, reliability, or completeness of these
data for individual use or aggregate use with other data

WW
2-15-06
N 80802

Existing Roads and Access

The well site can be reached from Ely, Nevada, by proceeding southwest on US Highway 6, the SR 318, for approximately 32 miles to Lund, Nevada, then an additional 9 miles to the turnoff as shown on Figure 1. Angle right (west) and proceed for approximately 6 miles on an existing graveled road to the proposed turnoff to the well location. The last 3,400 feet into the well location runs southeast and would be constructed to a total width of 16 feet and graveled. One turnout would be constructed. The top 6 to 12 inches of topsoil would be salvaged for future reclamation and immediately seeded with the interim seed mix shown in Attachment 4.

These roads would be maintained in the same or better condition as existed prior to the commencement of operations, and maintenance would continue until final abandonment and reclamation was completed.

Well Site Layout

The well site layout is shown in **Figure 2**. The Sage #1 would be constructed on flat terrain. The top 6 to 12 inches of topsoil would be stripped from the locations and stockpiled for future reclamation and immediately seeded with the interim seed mix shown in Attachment 4. The pad would be leveled, using material excavated from the reserve pit plus cuts and fills from the pad area itself, and then graveled.

The dirt contractor would be provided with an approved copy of the surface use plan and stipulations for weed mitigation and prevention.

No permanent living facilities would be planned for the sites, but there would be trailers on location during drilling operations, which would serve as temporary offices and housing for the drilling supervisor and wellsite geologist.

The reserve pit would be designed to exclude surface runoff, would be constructed entirely in cut material, and would not be lined. It would be fenced on the three exposed sides during operations to prevent wildlife and livestock from falling into the pit. Once drilling operations are completed, the fourth side would be fenced and remain fenced until grading and reseeding are completed. Recommended fencing diagrams are shown in **Attachment 3**.

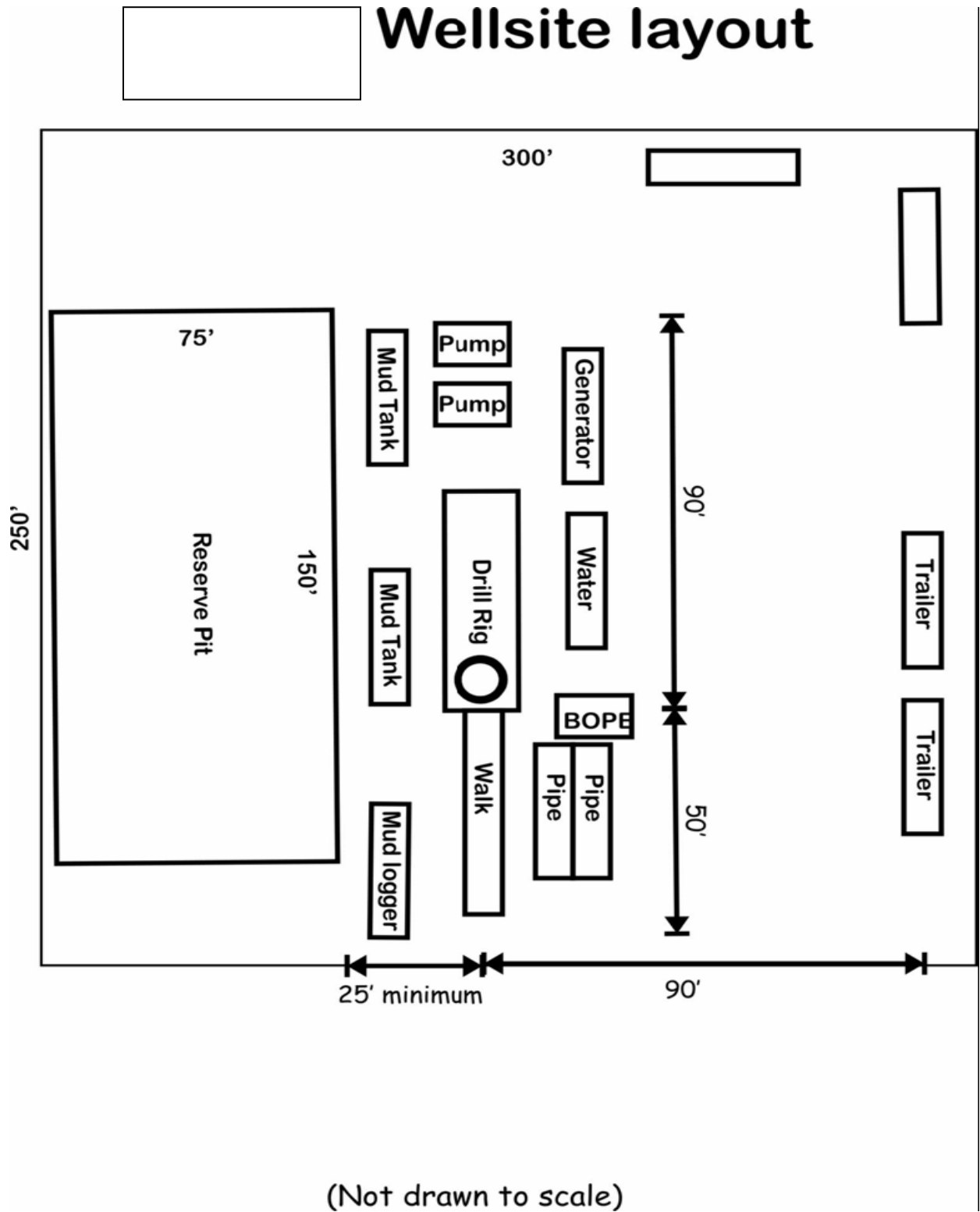
Water Source

Water would be obtained from an existing private source. Tierra Nevada Exploration Partners, LP estimates they would use a total of approximately 0.33 acre feet for the project.

Source of Construction Materials

Gravel would be obtained from an existing gravel source located approximately 5 miles east of Sage #1. A separate gravel sales contract is currently in place.

Figure 2



Waste Materials

Drill cuttings and drilling fluids would be contained in the reserve pit. The reserve pit and drilling fluids contained in the pit would be allowed to dry before backfilling. Pit walls would not be breeched so as to drain fluids to the surrounding surface.

Any spills of hydrocarbons from equipment on site would be promptly cleaned up and removed from the location in accordance with state and federal regulations.

All wastes that accumulate during the drilling operations would be contained in a trash cage or dumpster. Wastes would be removed periodically from the location and taken to an approved landfill. Burning would not be allowed on the well site. Chemical toilets with holding tanks would be utilized. All sewage would be disposed of in accordance with county and state regulations.

A Sundry Notice and Report on Wells (form 3160-5) would be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.

Location of Existing and/or Proposed Facilities if the Well is Productive

There are no existing production facilities within a one-mile radius of the proposed well. Producing wells and a refinery are located in Railroad Valley, approximately 25 miles west of the proposed well.

If a subsequent production well were drilled from this well location, a Sundry Notice showing the location of tank batteries and production facilities would be submitted prior to operations. Facilities would be placed on the well site pad so that no additional disturbance would be necessary. Any production pits would be fenced to prevent wildlife entry. Production would be expected to last for several years.

Reclamation

Reclamation would begin concurrently with well site construction activities. Topsoil would be stockpiled along the edge of the drill pad. The stockpiles would be seeded immediately and again, if needed, during the first recommended seeding period (October 1 to March 15) with the interim seed mixture shown in **Attachment 4**. Available topsoil from the access road construction would be similarly stockpiled and seeded.

Well abandonment and plugging would follow the procedures of 43 CFR 3162.3-4. If a production well is not drilled, the location and surrounding area would be cleaned of all material and debris. All open holes would be backfilled and compacted from bottom to top immediately upon completion of drilling operations. The reserve pit would be completely fenced off and flagged on all four sides to prevent access by wildlife, wild horses, and livestock. Any oil spills remaining in the reserve pit after drilling operations would be removed prior to allowing pit drying to take place.

Once the reserve pit is dry, which normally takes one to two years, dirt work would commence. The well pad and any other associated disturbed areas would be re-contoured to the approximate natural contours. Cuts and fills would be reduced to 3:1 slopes or less. Compacted soils within the disturbed areas would be broken up into a fine-grained seedbed by disking or any other generally accepted method of preparation. The stockpiled topsoil would be distributed over as much of the reclaimed area as possible. Seed from the recommended final seed mix (**Attachment 5**) would be planted on contour with a drill seeder or broadcast technique during the recommended seeding period of October 1 to March 15.

The 3,400-foot x 20-foot access route would be ripped, scarified, re-covered with any stockpiled topsoil, and seeded with the same seed mixture recommended for the well pad. Road reclamation would be done concurrently with the well site reclamation and follow the same procedures.

If a successful production well is established, the reserve pit and areas not needed for production would be reclaimed. Final reclamation would be deferred until production is completed and the well is plugged and abandoned.

Tierra Nevada Exploration Partners, LP would be bonded as required under 43 CFR 3104.

Noxious Weed Prevention

Tierra Nevada Exploration Partners, LP would implement the Ely Field Office Noxious Weed Prevention Schedule and SOPs for weed treatments, with special emphasis on the following actions. Prior to entering the site, all construction, drilling equipment, and vehicles would be washed down and cleaned to prevent the importation of noxious weed seeds from prior places of work. Vehicles would stay on roads and avoid driving through any weed patches. All seeds used in reclamation would be certified weed-free. Tierra Nevada Exploration Partners, LP would assist monitoring for noxious weeds during the life of the project, until reclamation is complete, and the reclamation fence is removed. Tierra Nevada Exploration Partners, LP would be responsible for the treatment and control of any noxious weed invasions.

Monitoring

Monitoring needed to assess reclamation success and continuing environmental stewardship would consist of periodic compliance inspections of the area during the life of the drilling operation by an authorized officer of the BLM. This monitoring would consist of checks on initial location of facilities, conformance to the APD and Conditions of Approval, and the status of any reclamation. Post-drilling compliance inspections would document, among other things, conformance with the proposed action, completion of earthworks of the reclamation plan, and monitoring for noxious weeds and vegetative success.

The No Action Alternative

The no action alternative, not to construct the oil and gas well pad and drill the wildcat well, is being analyzed in this EA in order to provide a baseline for comparison.

Other Alternatives Considered but not Analyzed in Detail

An on-site water well was considered, but rejected due to economic considerations. Neither alternative for a water source would result in any additional ground disturbance.

The original access route was partially relocated to avoid impacts to cultural resources and sensitive plant species that were identified during the pre-drill onsite inspection.

Other Alternatives

No other alternatives are necessary to respond to unresolved conflicts concerning alternative uses of available resources.

III. DESCRIPTION OF THE AFFECTED ENVIRONMENT WITH THE ASSOCIATED ENVIRONMENTAL CONSEQUENCES

Resources Not Present or Not Affected by the Proposed Action

There would be no impacts to Special Status Species (Federally Listed, Threatened or Endangered Species, Species Proposed For Federal Listing, State Protected or Otherwise Sensitive Species); floodplains, wetlands and riparian areas; wilderness values; areas of critical environmental concern; wild and scenic rivers; prime or unique farmlands; cultural, paleontological and historical resource values; wildlife; wild horses and burros (the proposed action is not within an HMA); Native American religious concerns; or environmental justice.

Cryptantha Welshii, a BLM state sensitive species, was identified along the originally staked access route during a T&E survey during the pre-drill inspection. The route was relocated to avoid the plants and its local habitat.

A Class III cultural inventory was conducted by a BLM archeologist and staff over the proposed drill pad and access route on the March 1, 2006 predrill inspection. Several artifacts were identified along a portion of the original access route. The route was relocated to avoid the artifacts and the local sand bar where they were found. No cultural or paleontological resources were found on the selected route. Therefore it is determined that this undertaking will not have any effect on historic properties under VII (D) (1) of the State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada State Historic Preservation Officer. Techniques used in this survey were such that most cultural and paleontological resources existing in the project area visible to surface examination should have been found. If however, cultural or paleontological resources are subsequently discovered that could be adversely affected by project-related activities the Ely District Manager will be immediately informed.

Operations commencing during the period May 1 to July 15 will be subject to the provisions of the Ely District policy management actions for the conservation of migratory birds. A qualified wildlife biologist will survey the area for nesting migratory birds. If any are found, operations will be postponed until after July 15.

Socio-Economic

Affected Environment

Eastern Nye County is sparsely populated. Employment in the Currant area is largely based on agriculture, in the communities Preston and Lund, and oil production in White River Valley. Ely, Nevada is the closest town to the project area that offers supplies and services.

Environmental Consequences

Proposed Action

The proposed action would provide the local community with short-term employment opportunities over the duration of the drilling operation. Should the well be productive, a private corporation would make an economic use of the public lands and long-term employment opportunities would be available for a larger work force.

No Action Alternative

The local community would be deprived of this short term and potential future employment opportunity. This economic use of the public lands would not occur.

Soils and Vegetation

Affected Environment

Figure 3 shows the flat topography and sparse vegetation of the project site. Precipitation averages 8” to 10” per year. The soils are a Kunzler-Sycomat association formed on the White River Valley playa. The soil surface is a crusted to soft windblown silt. Native vegetation is a big sage community dominated by big sagebrush, rubber rabbitbrush, and black greasewood. Other important vegetation present includes shadscale, Indian ricegrass, basin wildrye, and galleta. Small amounts of the invasive species cheatgrass, Russian thistle, and halogeton are present in the project area and along access roads.

Environmental Consequences

Proposed Action

It would be difficult to reestablish native vegetation in the disturbed area because of the low amount of precipitation and high alkalinity. Productivity of the soil would also be lessened due to loss of the soil structure during construction and reclamation activities. There would be a long term, perhaps permanent loss of as much as 4.8 acres of vegetation for livestock, wild horses, and wildlife. Should the well be placed into production, most of this acreage would be unavailable for several additional years. The reclamation measures of the proposed action would minimize the long-term impacts to vegetation

**Figure 3. Photo of Sage #1
Well location looking SW**



No Action Alternative

Under the no action alternative, impacts as described above would not occur.

Invasive, Non-Native Species (Including Noxious Weeds)

Affected Environment

Noxious weeds, those specifically listed by the State of Nevada, are shown in **Attachment 6**. A noxious weed risk assessment was completed for this project. **See Attachment 7**. The overall risk was calculated as moderate based on BLM Manual 9015. No noxious weeds were found on site during pre-site inspection of March 1, 2006. However, tall whitetop and spotted knapweed have been inventoried elsewhere in this portion of White River Valley. Small amounts of the invasive species chetgrass and Russian thistle are also present in or near the project area.

There are two categories of weeds as defined by the BLM. One is invasive, non-native weeds. The other is noxious weeds. Noxious weeds are defined on a State weed list as those species that are undesirable, introduced species for which aggressive control methods may stop their establishment in a given area. A zero tolerance policy for these weeds is in effect for project disturbances such as this oil well. Noxious weeds were not found on site during the March 1, 2006 visit.

Environmental Consequences

Proposed Action

Newly disturbed areas almost always will have some of these invasive, non-native species show up with the initial seeding because these weed seeds are already on site in the soil or nearby. Seed mixes are designed to be competitive with these species, and usually, over time, the longer lived perennial natives will out compete the opportunistic annual weeds. The goal of the reclamation objectives is to match the perennial cover of the reclaimed area with that of the undisturbed area.

The well site and access road areas would be exposed to potential invasive and noxious weeds as a result of development and production activities. The susceptibility to weeds would remain throughout the life of the project including the reclamation period. Invasive, non-native weeds are introduced species such as cheatgrass, Russian thistle, halogeton, and other species that are so prevalent and opportunistic within the region that it is no longer practical or possible to expect a zero tolerance policy for these species. It is likely that revegetation efforts will only be marginally successful so there is always a risk of long term/ permanent weed invasion. Should vegetative cover at the site be restored, the risk of weed establishment would diminish to approximately pre-development levels. Cleansing equipment and using weed free seed would mitigate these risks. The prevention, monitoring, and eradication measures incorporated in the proposed action are adequate to mitigate any potential Noxious Weed invasion.

No Action Alternative

Under the no action alternative, impacts as described above would not occur.

Visual Resources Management (VRM)

Affected Environment

The proposed project is located within a remote, uninhabited, portion of Nye County classified as Visual Resource Management (VRM) Class IV zone. The objective for the Class IV zone is to allow change, even dominant change, but to mitigate the change as well as possible.

Environmental Consequences

Proposed Action

The drilling operation would be directly visible from US 6. Should the well be put into production, production facilities and activities would be highly visible for the life of the well. Reclamation and reseeding would reduce long term impacts, although re-growth of the vegetation is expected to be slow. The contrasting visual effects of vegetation removal and reclamation would be noticeable for many years, as seen in the traces of old seismic lines throughout White River Valley, until such time that the climax vegetation was sufficiently re-established to blend in with the surrounding undisturbed areas.

No Action Alternative

Under the no action alternative, impacts as described above would not occur.

Livestock Grazing

Affected Environment

The proposed well site is located within the North Cove grazing allotment. The sparse vegetation in this area provides little forage for livestock grazing.

Environmental Consequences

Proposed Action

There would be an immediate loss of 4.8 acres of range within the project area during as many as three years of drilling and reclamation activities. It is estimated that less than one AUM of forage would be lost during this time. Should the well be placed in production, the loss of acreage would last for several years. Over time, some native vegetation could be re-established. There are no anticipated conflicts between rangeland resources and the proposed action.

No Action Alternative

Under the no action alternative, impacts as described above would not occur.

Water Quality (Drinking/Ground)

Affected Environment

Several agricultural wells are located within 2 to 3 miles of the proposed Sage #1 location. Measurements of six wells report depths to water from 5 feet to 111 feet below the surface. White River is a major drainage, which in the geologic past, flowed from south-central White Pine County into the Colorado River near Las Vegas. It is now an intermittent stream used mainly for agricultural purposes. The main channel is approximately 3 miles east of the Sage #1 location.

Environmental Consequences

Proposed Action

Wildcat oil wells such as Sage #1 generally use less than 0.3 acre feet (100,000 gallons) of water for drilling and dust control. There would be a local, short-term drawdown at the water source on the private land. The proposed action would not affect any existing drinking water sources within the region of the proposed action. There would be no effect on White River.

The drilling fluids are returned to the reserve pit and recirculated down the hole. The bentonitic composition of the drilling mud would seal off the reserve pit so that fluids would not be able to intermix with and possibly degrade near-surface groundwater. Federal and State water regulations prevent downhole contamination of groundwater in proposed oil well. The water component of the drilling mud would be allowed to evaporate prior to backfilling and reseeded the reserve pit.

No Action Alternative

Under the no action alternative, no impacts would occur.

Wastes, Hazardous and Solid

Affected Environment

No solid or liquid hazardous wastes presently occur on site.

Environmental Consequences

Proposed Action

Caustic soda would be added to the drilling fluid in small amounts in order to control the pH of the fluid. The drilling fluid, itself, consists of mostly water, bentonite, lost circulation materials such as paper and wood products, and the fine fraction of the drill cuttings. It is not toxic, either as a fluid or when dried, mixed with drill cuttings, in the reserve pit. This fluid would be contained within the lined reserve pit and, upon completion of drilling, allowed to dry, then covered with stockpiled fill and topsoil, and seeded. Unused additives would be hauled off site during rig demobilization.

Petroleum products are also used. Hydrocarbon spills would be cleaned-up according to protocols regulated by the Nevada Division of Environmental Protection (NRS 445A).

No other hazardous wastes would be generated. Solid wastes would be disposed of properly in accordance with the standard Conditions of Approval.

The precautions and mitigating measures in the proposed action are adequate to prevent impacts from wastes, hazardous and solid.

No Action Alternative

Under the no action alternative, impacts as described above would not occur.

Air Quality

Affected Environment

Periodic degradation of air quality occurs due to winds blowing dust from nearby areas and occasional regional air pollution.

Environmental Consequences

Proposed Action

There would be a localized, increase of dust levels as a result of construction activities and vehicle use. The gravel applied to the location pad and access road will help cover the exposed loose soils. Even so, wind blown dust from these exposed areas could cause a temporary degradation in air quality. Nevada State Air Quality standards would apply to this operation, and the operator would be required to apply water for dust abatement if the problem was above a threshold level as stated in the standards. Following reclamation of the site and successful revegetation, the local air quality would return to pre-operation conditions. Should the well be placed in production, dust would be generated by periodic vehicle traffic for several years.

No Action Alternative

Under the no action alternative, impacts as described above would not occur.

IV. CUMULATIVE IMPACTS

Cumulative impacts are discussed in the Egan Resource Management Plan (RMP) Proposed Oil and Gas Leasing Amendment and Final Environmental Impact Statement, August 1993, pp. 4-31 through 4-43. Typical oil and gas activities, including exploration, wildcat drilling, production and field development, and abandonment, are described in Appendix A of that document and are incorporated by reference into this environmental analysis. No additional analysis is necessary to address cumulative impacts for the proposed action.

The reasonable development scenario for the Egan Resource Area assumed that 175 wells would be drilled during the life of the plan and that only 10% of these would be producers. Approximately 29 wells have been drilled in the area analyzed in the Egan RMP since 1993. One has been put into production.

Resources that were identified in the document as potentially being affected in a cumulative sense consist of wildlife habitat, woodland products, cultural resources, recreational and visual resources, livestock and vegetation, wild horses and burros, soils and air quality. There would be little to no impacts to these resources from the proposed action.

V. PROPOSED MITIGATING MEASURES

The preventative measures and procedures of the proposed action and the attached Conditions of Approval (Attachment 2) are adequate to mitigate adverse effects to the human environment. No additional mitigating measures are proposed as a result of the impact analysis.

VI. SUGGESTED MONITORING

The monitoring measures included in the proposed action are sufficient to ensure mitigation of the potential impacts described above. No additional monitoring measures are proposed as a result of the impact analysis.

VII. CONSULTATION AND COORDINATION

Intensity of Public Interest and Record of Contacts

There is general public interest in this type of potential development. The proposed action was discussed at the BLM's regular Tribal Coordination meeting on February 23, 2006. The Application for Permit to Drill (APD) was posted at the Nevada BLM State Office on receipt. Notification of the availability of the Notice of Staking was posted on the Ely Field Office website (http://www.nv.blm.gov/ely/nepa/ea_list.htm) on March 14, 2006. Letters requesting comments for inclusion in the EA were mailed to the Western Watersheds Project, Duckwater Shoshone Tribe, Nevada Department of Wildlife, and the Nye County Commission on March 10, 2006.

Record of Internal District Review

Ryan Pitts	Invasive, Non-Native Species
Nathan Thomas	Cultural Resources
Jack Tribble	Visual Resource/Wilderness/Recreation
Paul Podborny	Riparian/Wetlands
Paul Podborny	Wildlife, Migratory Birds, Special Status Plants, Special Status Animals
Elvis Wall	Native American Consultation
Matt Wilkin	Wastes, Hazardous & Solid
Susan Baughman	Environmental Coordinator

Attachment 1. Application for Permit to Drill

The APD is available at the following locations

Bureau of Land Management
Ely Field Office
702 North Industrial Way
Ely, Nevada 89301

Bureau of Land Management
Nevada State Office
1340 Financial Boulevard
Reno, Nevada 89520

Attachment 2.
Standard Conditions of Approval for Oil and Gas Operations in the
Egan Resource Area

Application for Permit to Drill (APD) and Sundry Notices

The regulations governing drilling operations on public lands are stated in 43 CFR 3260. With submittal of an APD or Sundry Notice by the operator or lessee, the following conditions of approval will be required for the operation as applicable.

Pre-Construction

1. Existing roads should be used to the extent possible. Additional roads, if needed, shall be kept to an absolute minimum and the location of routes must be approved by the AO prior to construction.
2. Upon determination of an impending field development, a transportation plan will be requested to reduce unnecessary access roads.
3. All access roads will be constructed and maintained to BLM road standards (BLM Manual Section 9113).
4. Off-road travel will be restricted to terrain with less than 30 percent slopes unless approved by the AO.
5. Proposed surface disturbance and vehicular travel will be limited to the approved well location and access route.
6. Any changes in well location, facility location, access, or site expansion must be approved by the AO in advance.
7. Prior to approval of an APD or other lease operations, a Section 106 consultation must be completed by the AO as provided for under the Nevada BLM Programmatic Agreement for Cultural Resources.
8. Any activity planned within a ¼-mile on either side the Pony Express National Historic Trail must undergo a visual assessment. Appropriate mitigation of visual impacts will be implemented as necessary to keep the management corridor in as natural a condition as possible.

Well Pad and Facility Construction

1. Every pad, access road, or facility site must have an approved surface drainage plan.
2. A site diagram depicting the location of production facilities, recontoured slopes and stabilization measures shall be approved by the AO prior to installation of production

facilities.

3. Drainage from disturbed areas will be confined or directed so that erosion of undisturbed areas is not increased. In addition, no runoff water (including that from roads) will be allowed to flow into intermittent or perennial waterways without first passing through a sediment-trapping mechanism. Erosion control structures may include: water bars, berms, drainage ditches, sediment ponds, or devices.
4. Access road construction for exploratory wells should be planned such that a permanent road can later be constructed in the event of field development.
5. Construction of access roads on steep hillsides and near watercourses will be avoided where alternate routes provide adequate access.
6. Access roads requiring construction with cut and fill will be designed to minimize surface disturbance and take into account the character of the landform, natural contours, cut material, depth of cut, where the fill material will be deposited, resource concerns, and visual contrast.
7. Fill material will not be cast over hilltops or into drainages. Cut slopes should normally be no steeper than 3:1 and fill slopes no steeper than 2:1.
8. Low water crossings should be used whenever possible. Installation of culverts, if necessary, will be designed to maintain the original stream gradient and will be of adequate size to accommodate a 24-hour 100-year event. Fill material will be properly compacted in layers not exceeding 6 inches in thickness to insure stability and to prevent washing out or dislocation of the culvert. The road surface should not be less than 12 inches above the culvert to prevent crushing from weight loads.
9. As required, fill slopes surrounding culverts will be riprapped with a well-graded mixture of rock sizes containing no material greater than two feet or smaller than three inches. The ratio of maximum to minimum dimension of any rock shall not exceed 6:1.
10. Water turnouts needed to provide additional drainage will be constructed not to exceed two percent slope to minimize soil erosion.
11. Well site layout should take into account the character of the topography and landform. Deep vertical cuts and steep long fill slopes should be avoided. All cut and fill slopes should be constructed to the least percent slope practical.
12. Trash will be retained in portable trash cages and hauled to an authorized disposal site for disposal. Burning will not be allowed on the well site.
13. No drilling or storage facilities will be allowed within 500 feet of any pond, reservoir, canal, spring, or stream. Other protective areas near water may be required to protect riparian habitat and special status species.
14. Spring and water developments on public lands may be used only with the prior written

approval of the AO or the water rights holder.

15. To maintain aesthetic values, all semi-permanent and permanent facilities will be painted to blend with the natural surroundings. The Standard Environmental Colors will be used for color selection. Fences shall be made of non-reflective materials.
16. Fences shall not be cut without prior approval of the AO. Before cutting any fences, the operator shall firmly brace the fence on both sides of the cut; a temporary gate will be installed for use during the course of operations unless the fence is immediately repaired. Upon completion of operations, fences shall be restored to at least their original condition.
17. As directed by the AO, cattle guards will be installed whenever access roads are through pasture gates or fences. These cattle guards shall be maintained. This includes cleaning out under cattle guard bases when needed.
18. The depth of surface soil material to be removed and stockpiled will be specified by the AO. If topsoil is stockpiled for more than one year, the stockpile shall be seeded or otherwise protected from wind and water erosion. The stockpile shall be marked or segregated to avoid loss or mixing with other subsurface materials. Any trees removed will be separated from soils and stockpiled separately.
19. Mud, separation pits, and other containments used during the exploration or operation of the lease for the storage of any hazardous materials shall be adequately fenced, posted, and/or covered.
20. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the AO. Within five working days the AO will inform the operator as to whether:
 - a. the materials appear eligible for the National Register of Historic Places
 - b. the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
 - c. a timeframe for the authorized officer to complete an expedited review under 36 CFR 800.11 or other applicable Programmatic Agreement, to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate
21. If the operator wishes, at any time, relocate activities to avoid the expense of mitigation and/or the delays associated with the process described in item 20 above for inadvertent discovery of cultural resources, the authorized officer will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The authorized officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the authorized officer that the required mitigation has been completed, the operator will then be allowed to resume construction.

22. Bald eagle roosts, peregrine falcon hawk sites and known occupied raptor aeries (nests) will be avoided during the nesting and fledging period.
23. Field development construction activities within ½-mile of a sage grouse lek will require motorized equipment to have noise abatement devices to preclude excessive noise during the sage grouse strutting period.
24. The cutting of rare, unique or unusual trees will not be permitted. In particular cutting of Bristlecone pine, Swamp Cedar, Ponderosa pine, and White Fir will be avoided.
25. Consultation with the U.S. Fish and Wildlife Service (FWS) is required per section 7 of the Endangered Species Act prior to approval of an APD or other lease operations if any proposed listed or listed threatened or endangered species or its critical habitat is likely to be affected by project activities. If there is deemed to be any adverse impact, the proposal will be modified or the request denied.
26. Actions that will adversely impact a special status species will be modified.
27. Fences shall be flagged with bright colored flagging at least every rod for visibility to wild horses. All fences should be constructed using green steel posts with white or silver tops to increase visibility. Fences should also avoid obvious horse migration routes (deep trails, stud piles) if at all possible.
28. No access roads, drill pads, mud pits or storage facilities will be allowed within 200 meters of cave entrances, drainage areas and subsurface passages. No waste material or chemicals will be placed, or disposed of, in sinkholes or gates during specified time frames by cave entrances. If during construction activities any sinkholes or cave openings are discovered, construction activities will cease and the AO will be notified.
29. The discharge of dredged or fill material into surface waters such as navigable and interstate waters and their tributaries, wetlands adjacent to those waters and all impoundments of those waters may require an individual permit or notification under Section 404 of the Clean Water Act (CWA) issued by the District Engineer (DE) of the Corps of Engineers (COE). Criteria applied under Section 404 is established in regulation and will be used to determine the type of permit or notification required.

Field Operation

1. Operations shall be done in a manner that prevents damage, interference, or disruption of water flows, and improvements associated with all springs, wells, or impoundments. It is the operator's responsibility to enact the precautions necessary to prevent damage, interference, or disruptions.
2. Companies controlling roads that provide access into crucial wildlife areas may be required to close the road with a lockable gate to prevent general use of the road during critical periods of the year when resource problems are experienced (during hunting seasons, winter, etc.). This restrictive measure will be applied where needed to protect wildlife resources or

to minimize environmental degradation.

3. The use of closed road segments will be restricted to legitimate, authorized agents of the lessee and/or their subcontractor(s), the land managing agency, and other agencies with a legitimate need (NDOW, other law enforcement agencies, etc.).
4. Unauthorized use or failure to lock gates during specified time frames by the lessee or its subcontractors will be considered a violation of the terms of the APD or associated grants.
5. The operator shall regularly maintain all roads used for access to the lease operation. A maintenance plan may be required. A regular maintenance program may include, but not be limited to, upgrading of existing roads, blading, ditching, culvert and drainage installation, and graveling or capping of roadbed.
6. Noxious weeds that may be introduced due to soil disturbance and reclamation will be treated by methods to be approved by the AO. These methods may include biological, mechanical, or chemical. Should chemical methods be approved, the lessee must submit a Pesticide Use Proposal to the AO 60 days prior to the planned application date.

Reclamation and Abandonment

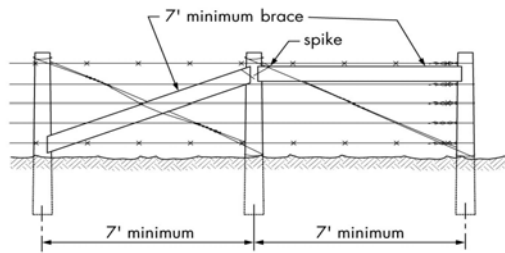
1. A water well may be accepted by the Ely District upon completion of operations. Please submit the following information to the Ely District Office, Bureau of Land Management, HC 33, Box 33500, Ely, NV 89301-9408:
 - a. Profile 1 Water Analysis
 - b. Type of inside diameter of casing used in well
 - c. Total depth of well
 - d. Depth of concrete seal
 - e. Depth of static water level
 - f. Water bearing formation or description of aquifer
2. The operator or contractor will contact the AO 48 hours prior to reclamation work.
3. Restoration work may not begin on the well site until the reserve pits are completely dry.
4. Disturbed areas will be recontoured to blend as nearly as possible with the natural topography prior to revegetation. This includes removing all berms and refilling all cuts. Compacted portions of the pad will be ripped to a depth of 12 inches unless in solid rock.
5. Site preparation for reclamation may include contour furrowing, terracing, reduction of steep cut and fill slopes, and the installation of water bars, etc.

6. All portions of the access roads not needed for other uses as determined by the AO will be reclaimed.
7. The stockpiled topsoil will be spread evenly over the disturbed area.
8. The operator will be required to construct water bars and re-open drainages on abandoned access roads and pipeline routes to minimize erosion as required. Water bars will be spaced appropriately dependent upon topography and slope. Pipeline routes shall be water-barred perpendicular to the fall-line of the slope.
9. The area is considered to be satisfactorily reclaimed when all disturbed areas have been recontoured to blend with the natural topography, erosion stabilized and an acceptable vegetative cover has been established. The Nevada Guidelines for Successful Revegetation for the Nevada Division of Environmental Protection, the Bureau of Land Management and the U.S.D.A Forest Service (attached as part of the SPPs/COAs) will be used to determine if revegetation is successful.
10. Rehabilitation shall be planned on the sites of both producing and abandoned wells. The entire site or portion thereof, not required for the continued operation of the well, should be restored as nearly as practical to its original condition. Final grading of back-filled and cut slopes will be done to prevent erosion and encourage establishment of vegetation.
11. Petroleum products such as gasoline, diesel fuel, helicopter fuel, crankcase oil, lubricants, and cleaning solvents used to fuel, lubricate, and clean vehicles and equipment will be containerized in approved containers.
12. Hazardous material shall be properly stored in separate containers to prevent mixing, drainage, or accidents. Hazardous materials shall not be drained onto the ground or into streams or drainage areas.
13. Totally enclosed containment shall be provided for all solid construction waste including trash, garbage, petroleum products, and related litter will be removed to an authorized sanitary landfill approved for the disposal of these classes of waste.
14. All construction, operation, and maintenance activities shall comply with all applicable Federal, State, and local laws and regulations regarding the use of hazardous substances and the protection of air and water quality.
15. In construction areas where recontouring is not required, vegetation will be left in place wherever possible and the original contour will be maintained to avoid excessive root damage and allow for resprouting.
16. Watering facilities (e.g. – tanks, developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction activities to its predisturbed condition as required by the AO.
17. Mulching of the seed-bed following seeding may be required under certain conditions (i.e. –

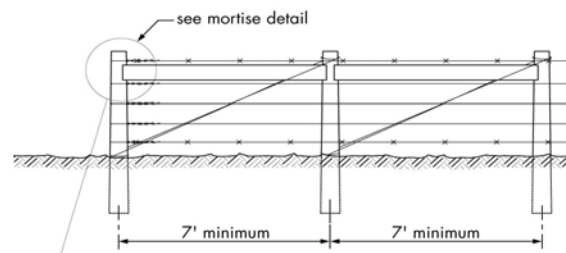
expected severe erosion), as determined by the AO.

18. Seed will be broadcast between October 1 and March 15 using a site-specific seed mixture and depth of planting as determined by the AO. Seed may be applied with a rangeland drill at half the rate of broadcast seeding. All seeding application rates will be in pounds of pure live seed per acre. Seed should be adapted varieties.

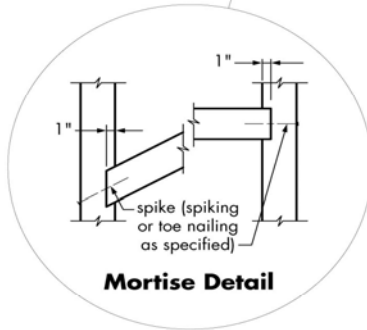
Attachment 3. Recommended construction standards for exclosure fences in livestock areas.



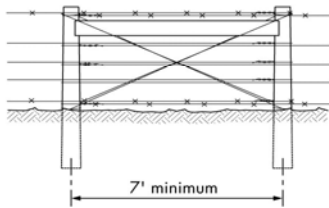
End Panel-Type 1



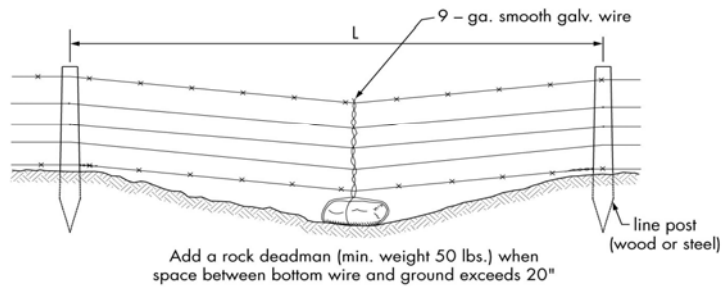
End Panel-Type 2



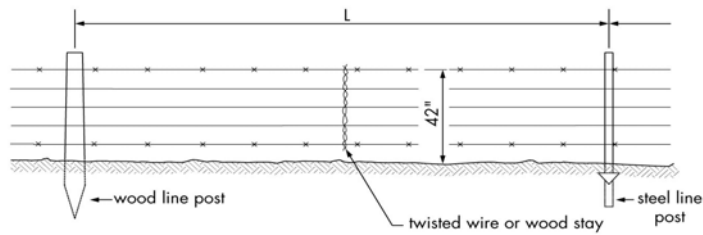
Mortise Detail



Stress Panel



Panel at Minor Depression



Line Panels

Attachment 4

Recommended Seed Mix for Sage # 1 Interim Reclamation

<u>Species</u>	<u>Seeds/Lb</u>	<u>Seed rate *</u> lbs/ac	<u>Seeds/sq ft</u>
Agropyron sibericum (Siberian wheatgrass)	170,000	3.0	11
Pascrophyrum smithii (Western Wheatgrass)	110,000	2.0	4
Achnatherum hymenoides Indian ricegrass, Nezpar	141,000	4.0	12
Bouteloua gracilis (Blue grama)	825,000	0.5	9
Secale cereale (Cereal rye, sterile)	18,000	10	4
Agropyron cristatum (Crested wheatgrass, Ephriam)	200,000	5	2
Total		24.5 lbs/ac	42 seeds/sq ft.

Seeds should be planted between October 1 and March 15.

Substitutions can be made depending on seed price and availability. Contact the BLM if substitutions are required.

* Seed rate - Adjust listed pounds/acre for pure live seed.

Pure Live Seed pounds/acre = $\frac{\text{Seed rate (listed above lbs/acre)}}{(\% \text{ germination})(\% \text{ purity})}$

Attachment 5
Final Seed Mixture
Recommended Seed Mix for
Sage # 1 Final Reclamation

<u>Species</u>	<u>Seeds/Lb</u>	<u>Seed rate*</u> lbs/ac	<u>Seeds/sq ft</u>
Sporobolus airoides (Alkali sacaton)	1,758,000	0.1	4
Squirrel tail (Sitanion hystrix)	192,000	2.0	9
Agropyron cristatum (Crested wheatgrass,Ephriam)	200,000	5	2
Pascrophyrum smithii (Western Wheatgrass)	110,000	2.0	4
Achnatherum hymenoides Indian ricegrass, Nezpar	141,000	4.0	12
Secale cereale (Cereal rye)	18,000	10	4
Linum lewisii (Appar Blue Flax)	293,000	0.5	3
Penstemon palmeri (Palmer penstemon)	610,000	0.5	7
Atriplex confertifolia (Shadscale)	64,900	1.0	1
Artemisia tridentata wyomingensis (Wyoming Big Sagebrush)	2,500,000	0.1	2 (estimate) (low germination)
Total	<hr/> 23.2 lbs/ac		48 seeds/sq ft

Seeds should be planted between October 1 and March 15.

Substitutions can be made depending on seed price and availability. Contact the BLM if substitutions are required.

* Seed rate - Adjust listed pounds/acre for pure live seed.

Pure Live Seed pounds/acre = $\frac{\text{Seed rate (listed above lbs/acre)}}{(\% \text{ germination}) (\% \text{ purity})}$

Attachment 6 Nevada Noxious Weed List

NEVADA NOXIOUS WEED LIST		
Common Name	Latin Name	Other Name(s)
Austrian fieldcress	<i>Rorippa austriaca</i>	Swaisonpea
Austrian peaweed	<i>Sphaerophysa salsula</i>	
Black henbane	<i>Hyoscyamus niger</i>	
Camelthorn	<i>Alhagi pseudalhagi</i>	<i>A. camelorum</i>
Canada thistle	<i>Cirsium arvense</i>	
Carolina Horsenettle	<i>Solanum carolinense</i>	
Common crupina	<i>Crupina vulgaris</i>	
Common St. Johnswort	<i>Hypericum perforatum</i>	Goatweed; Klamath weed
Dalmation toadflax	<i>Linaria genistifolia</i> <i>ssp. dalmatica</i>	
Diffuse knapweed	<i>Centaurea diffusa</i>	
Dyer's woad	<i>Isatis tinctoria</i>	
Hoary cress	<i>Cardaria draba</i>	whitetop
Houndstongue	<i>Cynoglossum officinale</i>	
Iberian starthistle	<i>Centaurea iberica</i>	
Johnsongrass	<i>Sorghum halepense</i>	Perennial sorghum
Leafy spurge	<i>Euphorbia esula</i>	
Mediterranean sage	<i>Salvia aethiopis</i>	
Medusahead	<i>Taeniatherum caput-medusae</i>	Medusahead rye
Musk thistle	<i>Carduus nutans</i>	
Perennial pepperweed	<i>Lepidium latifolium</i>	Tall whitetop
Perennial sowthistle	<i>Sonchus arvensis</i>	
Poison Hemlock	<i>Conium maculatum</i>	
	<i>Tribulus terrestris</i>	

NEVADA NOXIOUS WEED LIST		
Common Name	Latin Name	Other Name(s)
Puncturevine		
Purple loosestrife	<i>Lythrum salicaria</i>	Purple lythrum
Purple starthistle	<i>Centaurea calcitrapa</i>	
Rush skeletonweed	<i>Chondrilla juncea</i>	
Russian knapweed	<i>Centaurea repens</i>	
Saltcedar	<i>Tamarix ramosissima</i>	Tamarisk
Scotch thistle	<i>Onopordum acanthium</i>	
Silverleaf nightshade	<i>Solanum elaeagnifolium</i>	White horsenettle
Spotted knapweed	<i>Centaurea maculosa</i>	
Squarrose knapweed	<i>Centaurea virgata</i> <i>ssp. squarrosa</i>	
Sulfur cinquefoil	<i>Potentilla recta</i>	
Yellow starthistle	<i>Centaurea solstitialis</i>	
Yellow toadflax	<i>Linaria vulgaris</i>	butter and eggs
Waterhemlock	<i>Cicuta ssp.</i>	
Western waterhemlock	<i>Cicuta douglasii</i>	
Wild licorice	<i>Glycyrrhiza lepidota</i>	American licorice

Attachment 7
RISK ASSESSMENT FOR NOXIOUS WEEDS
Tierra Nevada Exploration Partners, LP
Sage #1 APD
Nye County, Nevada

On March 16 ,2006 a Noxious Weed Risk Assessment was completed for the Sage #1 APD for and oil well in White River Valley. The proposed action is to construct 3.2 acre well pad and 3,400-foot access road for a total disturbance of 4.8 acres. Drilling water would be obtained from private lands near the Sage # 1 location. Both the access road and Sage #1 location would be graveled using material from the recently permitted Dave Gibson White River gravel pit.

The Sage #1 well will take approximately one month to drill. Reclamation would begin upon demobilization, but take 1 year or more to complete, depending on whether or not the well was put into production or plugged and abandoned. The project area is within the BLM weed surveyed area.

Factor 1 assesses the likelihood of noxious weed species spreading to the project area.

For this project, the factor rates as Moderate (5) at the present time. Perennial pepperweed (tall whitetop) and spotted knapweed have been inventoried along the existing graveled access road – Gibson Road - from SR 318 to the proposed access road to the Sage #1 location. A field inspections on March 1, 2006 did not find any noxious weeds within the proposed project area. Small amounts of Cheatgrass, Russian thistle, and some halogeton were observed.

Noxious weed seeds could be imported into the 4.8 acre project area from the existing gravel road, the gravel pit area, and during water hauls from the Private land.

None (0)	Noxious weed species not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious weed species in the project area.
Low (1-3)	Noxious weed species present in areas <u>adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious weeds into the project area.</u>
Moderate (4-7)	Noxious weed species <u>located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious weed species even when preventative management actions are followed.</u> Control measures are essential to prevent the spread of noxious weeds within the project area.
High (8-10)	<u>Heavy infestations of noxious weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious weeds</u> on disturbed sites throughout much of the project area.

Factor 2 assesses the consequences of noxious weed establishment in the project area.

For this project, the factor rates as Moderate (4). Cheatgrass, Russian thistle, and halogeton will probably appear in the 4.8-acre project area prior to final reclamation and may remain even after final reclamation. The noxious weeds, perennial pepperweed and spotted knapweed, could also become established.

Mitigation: The project operations will be conducted in compliance with the Ely District

Noxious Weed Schedules. The following scheduled procedures can significantly and effectively reduce noxious weed introduction into the project area:

1. All vehicles and all other project equipment will be cleaned and inspected prior to mobilizing to the gravel pit and upon re-entry after periods of inactivity. The cleaning will concentrate on the undercarriage, with special emphasis on axels, frame, cross members, motor mounts, and on underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out with refuse and disposed of in waste receptacles.
2. Stockpiles of topsoil will be immediately seeded with an interim seed mixture in order to stabilize the soil and compete with noxious and invasive weeds.
3. The local land owner routinely sprays for weeds on his private land which would include the water source area.

Low (1-3)	No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on the site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely, but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

For this project, the Risk Rating is Moderate: Factor 1 = (5) and Factor 2 = (4). Risk Rating = (20).

Mitigation: The follow-up components of controlling the project area will involve monitoring and spraying as needed to the best management standards.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction or spread of noxious weeds into the area. Preventative management measures could include modifying the project to include seeding the area to occupy disturbed sites with desirable species, encouraging project advocate to watch for and report or eradicate any small weed patches in their project area, incorporating weed detection into project compliance inspection activities, encouraging the advocate to attend weed identification workshops when offered, washing vehicles prior to entering project areas, and other actions as appropriate. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed sites and controlling existing infestations of noxious weeds prior to project activity, washing all work vehicles before entering the site and at regular intervals throughout the project, requiring project advocate to watch for, report, and eradicate any small weed patches in their project area, incorporating weed detection into project compliance inspection activities, encouraging the advocate to attend weed identification workshops when offered equipment. Project must provide at least 5 consecutive years of monitoring and follow up weed treatment, for previously treated infestations.

Reviewed by: Ryan Pitts
Noxious Weed Coordinator

Date: _____